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Wayne Milton Schott

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* WAYNE MILTON SCHOTT

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Appeal 2008-4733  
Application 09/973,338  
Technology Center 2800

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Decided: December 1, 2008

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Before KENNETH W. HAIRSTON, JOSEPH F. RUGGIERO,  
and ELENI MANTIS MERCADER, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

## INVENTION

Appellant's claimed invention is directed to an acoustical enclosure (300) divided into a first and a second chamber (330, 340) by a partitioning wall (320) and having a first speaker (350) mounted on the partitioning wall (320) within the acoustical enclosure (300) and a second speaker (360) mounted to an exterior wall (370) of the first chamber (330) and having an internal vent (380) within partitioning wall (320) and an external vent (395) in the exterior wall (390) of the second chamber (340) (Fig. 3 and Spec. 8:19-10:12).

Claim 1, reproduced below, is representative of the subject matter on appeal:

1. An acoustical enclosure comprising:  
a speaker box comprising walls that enclose an acoustic chamber;  
a partitioning wall coupled to interior surfaces of said walls of said speaker box, said partitioning wall dividing said acoustic chamber into a first chamber and into a second chamber;

wherein at least one wall of said walls that enclose said acoustic chamber comprises portions that form an external vent to said second chamber;

a first speaker mounted within said partitioning wall, wherein a front portion of said first speaker has access to said first chamber and a back portion of said first speaker has access to said second chamber; and

a second speaker mounted within one of said walls that enclose said acoustic chamber, wherein a front portion of said second speaker has access to air outside said speaker box and a back portion of said second speaker has access to said first chamber.

### THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Festa	US 4,437,539	Mar. 20, 1984
Tanaka	US 5,850,460	Dec. 15, 1998

The following rejections are before us for review:

1. The Examiner rejected claims 1 under 35 U.S.C. § 102(b) as being anticipated by Festa.
2. The Examiner rejected claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Tanaka.

### ANTICIPATION ISSUE

#### Claim 1

Appellant contends that Festa's speaker 50 (i.e., second speaker) "is not 'mounted . . . wherein . . . a back portion of said second speaker has access to said first chamber'" as claimed (App. Br. 5). Appellant notes that Festa teaches a

speaker 50 that is “sealed so as to prevent any emanating sound from entering into chamber 34,” and thus, has no access to the second chamber (App. Br. 5-6).

The Examiner responds that “access” “has several definitions including, within, inside, entering, communicating, touching, and approaching” (Ans. 7). The Examiner explains that Festa’s Figure 2 shows that the back of the second speaker (i.e., speaker 50) “is within, inside, communicating with, or touching the first chamber (i.e., chamber 34), and therefore has access to the first chamber” (Ans. 7).

Has the Appellant shown that the Examiner erred by determining that Festa’s second speaker (i.e., speaker 50) has “access” to the first chamber (i.e., chamber 34) as claimed?

#### FINDINGS OF FACT

The relevant fact includes the following:

1. The term “access” is broadly defined as “approaching, entering, exiting, communicating with, or making use of.” *The Free Dictionary*, at <http://www.thefreedictionary.com/access> (last visited 10/31/2008).

#### PRINCIPLES OF LAW

During ex parte prosecution, claims must be interpreted as broadly as their terms reasonably allow since Appellants have the ability during the administrative process to amend the claims to avoid the prior art. *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989).

## ANALYSIS

*Has the Appellant shown that the Examiner erred by determining that Festa's second speaker (i.e., speaker 50) has "access" to the first chamber (i.e., chamber 34) as claimed?*

The term "access" is broadly defined as "approaching, entering, exiting, communicating with, or making use of" (Finding of Fact 1). Thus, under the broadest reasonable interpretation Festa's speaker 50 has "access" to chamber 34 by "making use of" the chamber's 34 space (i.e., being placed within chamber 34).

## CONCLUSION

The Appellant has not shown that the Examiner erred by determining that Festa's second speaker (i.e., speaker 50) has "access" to the first chamber (i.e., chamber 34) as claimed.

## ANTICIPATION, OR IN THE ALTERNATIVE, OBVIOUSNESS ISSUES

### Claims 1-20

#### 1. Speaker

With respect to claims 1, 9, and 11, Appellant contends that Tanaka's element 102 is not a "speaker" because it is a passive radiator and not an electro-acoustic transducer as implicitly described in Appellant's Specification by disclosing that the speakers are electrically coupled in phase (App. Br. 7). Furthermore, regarding claims 3, 12, and 19, Appellant contends that the passive radiator 102 has no electrical drive and therefore cannot be connected electrically

in phase with anything (App. Br. 8). With respect to claims 5, 14, and 17, Appellant contends that due to the passive radiator the Examiner has not shown increase in volume of the first chamber (App. Br. 9).

The Examiner responds that the terms “electroacoustic transducer” or “active speakers” are not recited in the claims, and thus, the claim language does not preclude a “speaker” with passive emission of sound (Ans. 7-8). The Examiner further states that the terms “speaker” or “radiator” are synonymous because they both emit or send out sound (Ans. 8). The Examiner states that Tanaka teaches a passive radiator that emits noise in the form of bass sounds (Ans. 8). The Examiner further responds that Tanaka’s Figures 16-17 show an electrical circuit diagram of how the two speakers (i.e., speakers 101 and 102) are connected in phase electrically wherein electricity goes through at least one of the speakers (i.e., speaker 101) (Ans. 9). The Examiner further states that the claim language does not require that both speakers are driven electrically (Ans. 9). Finally, the Examiner asserts that the volume in a first chamber (i.e., chamber 106) is increased due to the presence of the second speaker (i.e., speaker 102) within one of the walls (i.e., wall 103a) that encloses the acoustic chamber (Tanaka, col. 2, ll. 12-20 and Ans. 6).

Has the Appellant shown that the Examiner erred by determining that a “passive radiator” which is not an electroacoustic transducer constitutes a “speaker” as claimed?

## 2. Vents

With respect to claims 2, 4, 6, 8, 10, 13, 15, 16, 18, and 20, Appellant further contends that Tanaka does not disclose providing an external vent (App. Br. 7). Appellant also contends that Tanaka does not teach that the partitioning wall contains an uncovered internal vent, but rather that Tanaka teaches an additional wall with a port between the passive radiator and the driver (App. Br. 8).

The Examiner states that Tanaka acknowledges that a conventional speaker, such as the one disclosed in Figure 15, has the drawback of unwanted vibration and resonance and that the reason for altering the conventional speaker is to reduce the unwanted vibration (col. 3, ll. 61-67) (Ans. 9). Furthermore, the Examiner states that Tanaka teaches variations of a conventional speaker by adding ports (col. 7, l. 60-col. 8, l. 2) (Ans. 9). The Examiner reasoned that much like a pot having a vent hole allowing steam to escape and reduce rattling, the added ports in Tanaka would reduce unwanted vibration (Ans. 9-10).

More specifically, the Examiner responds that Tanaka teaches that it would have been obvious to alter the typical/conventional bandpass speaker (Fig. 15, col. 1, ll. 39-51) by placing a port in a side wall to which no driver unit is installed (col. 7, l. 60-col. 8, l. 2), and thus, it would have been obvious to one skilled in the art to create an external port by inserting a port in the wall to the right hand side of the second chamber (i.e., chamber 105) (Ans. 8). The Examiner articulated as motivation that the port would be an outlet allowing vibration to escape (Ans. 8). The Examiner further responds that Tanaka also teaches that it would have been obvious to form a port in a divider (i.e., divider 104) placed between the two speakers (i.e., internal port) (col. 7, l. 60-col. 8, l. 2) (Ans. 9).



Has the Appellant shown that the Examiner erred by modifying the speaker arrangement as taught by Tanaka with the additional internal and external ports as suggested by Tanaka's variations for the articulated rationale of reducing vibration?

#### FINDINGS OF FACT

The relevant facts include the following:

2. Appellant's claims do not recite the terms "electroacoustic transducer" or "active speakers" (claims 1-20).
3. Tanaka teaches an electrical circuit diagram (Figures 16-17) of how the two speakers (i.e., speakers 101 and 102) are connected in phase electrically wherein electricity goes through at least one of the speakers (i.e., speaker 101).
4. The claims do not require that both speakers are driven electrically (claims 1-20).
5. Tanaka teaches a first chamber (i.e., chamber 106) and a second speaker (i.e., speaker 102) within one of the walls (i.e., wall 103a) that encloses the acoustic chamber (Fig. 15).
6. Tanaka teaches that the vibration mass (i.e., volume) is increased at the location of the passive radiator (i.e., first chamber) (col. 2, ll. 14-20).
7. Tanaka teaches that a conventional bandpass speaker system (Figure 15 and col. 1, ll. 31-50), has the drawback of unwanted vibration and resonance and that it is desirable to reduce the unwanted vibration (col. 3, ll. 61-67).
8. Tanaka teaches variations of a conventional speaker system by adding ports in a side wall where no driver is installed (i.e., in Figure 15 adding an

external vent in the wall to the right hand side of the second chamber 105) (col. 7, ll. 65-67) and by adding ports in a divider placed between the passive radiator and the driver unit (i.e., in Figure 15 internal port placed in divider wall 104 between the passive radiator 102 and driver unit 101) (col. 7, l. 67-col. 8, l. 2).

9. Tanaka does not teach that the internal port is placed on an additional divider, but only that the port is disposed on a divider between the two speakers (col. 7, l. 67-col. 8, l. 2).

#### PRINCIPLES OF LAW

The Examiner's articulated reasoning in the rejection must possess a rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). The Supreme Court, citing *In re Kahn*, 441 F.3d at 988, stated that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.*

"The diversity of inventive pursuits and of modern technology counsels against confining the obviousness analysis by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasizing the importance of published articles and the explicit content of issued patents." *KSR v. Teleflex*, 127

S. Ct. at 1731-32. “Rigid preventative rules that deny factfinders recourse to common sense are neither necessary . . . nor consistent with” our case law. *Id.* 1742-43.

During ex parte prosecution, claims must be interpreted as broadly as their terms reasonably allow since Appellants have the ability during the administrative process to amend the claims to avoid the prior art. *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989).

Although claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

## ANALYSIS

*1. Has the Appellant shown that the Examiner erred by determining that a “passive radiator” which is not an electroacoustic transducer constitutes a “speaker” as claimed?*

Appellant’s claims do not recite the terms “electroacoustic transducer” or “active speakers,” and thus, the claim language does not preclude a “speaker” with passive emission of sound (Finding of Fact 2). As stated *supra*, although claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Geuns*, 988 F.2d at 1184.

Furthermore, Tanaka teaches an electrical circuit diagram (Figures 16-17) of how the two speakers (i.e., speakers 101 and 102) are connected in phase electrically wherein electricity goes through at least one of the speakers (i.e., speaker 101) (Finding of Fact 3). The claims do not require that both speakers are

driven electrically (Finding of Fact 4). Thus, Tanaka teaches that the two speakers are connected in phase electrically as claimed.

Tanaka's Figure 15 shows a first chamber (i.e., chamber 106) and a second speaker (i.e., speaker 102) within one of the walls (i.e., wall 103a) that encloses the acoustic chamber (Finding of Fact 5). Tanaka teaches that the vibration mass (i.e., volume) is increased at the location of the passive radiator (i.e., first chamber) (Finding of Fact 6). Thus, Tanaka teaches an increase in volume of the first chamber due to the presence of the second speaker within one of the walls of the first chamber as claimed.

*2. Has the Appellant shown that the Examiner erred by modifying the speaker arrangement as taught by Tanaka with the additional internal and external ports as suggested by Tanaka's variations for the articulated rationale of reducing vibration?*

Tanaka teaches that a conventional bandpass speaker system (Figure 15) has the drawback of unwanted vibration and resonance and that it is desirable to reduce the unwanted vibration (Finding of Fact 7). Furthermore, Tanaka teaches variations of a conventional speaker system by adding ports in a side wall where no driver is installed (i.e., in Figure 15 adding an external vent in the wall to the right hand side of the second chamber 105) and by adding ports in a divider placed between the passive radiator and the driver unit (i.e., in Figure 15 internal port placed in divider wall 104 between the passive radiator 102 and driver unit 101) (Finding of Fact 8). We note that Tanaka does not teach that the internal port is placed on an additional divider, but only that the port is disposed on a divider between the two speakers, and thus, the divider wall 104 with a port would be

disposed between the speakers 101 and 102 (Finding of Fact 9).

The Examiner's articulated motivation to combine Tanaka's variations would be that the ports constitute outlets allowing vibration to escape and that much like a pot having a vent hole allowing steam to escape and reduce rattling, the added ports in Tanaka would reduce unwanted vibration (Ans. 8-10).

The Examiner's articulated rationale for modifying Tanaka's conventional bandpass speaker system with the suggested Tanaka variations including internal and external ports supports the legal conclusion of obviousness (i.e., reducing unwanted vibration). *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007).

### CONCLUSIONS OF LAW

1. The Appellant has not shown that the Examiner erred by determining that a "passive radiator" which is not an electroacoustic transducer constitutes a "speaker" as claimed.

2. The Appellant has not shown that the Examiner erred by modifying the speaker arrangement as taught by Tanaka with the additional internal and external ports as suggested by Tanaka's variations for the articulated rationale of reducing vibration.

### ORDER

The decision of the Examiner to reject claim 1 under 35 U.S.C. § 102(b) as being anticipated by Festa is affirmed. The decision of the Examiner to reject claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Tanaka is affirmed.

Appeal 2008-4733  
Application 09/973,338

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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